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THE IMPACT OF INFORMATION WARFARE WHEN CONDUCTING OPERATIONAL DECEPTION

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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ABSTRACT

U.S. military leaders placed a renewed emphasis on Operational Art in the late 1970s. The driving factor was the need give operational commanders the tools necessary to better design campaigns to fill the gap between the strategic and tactical levels of war with a focus on translating national strategy into military objectives across the spectrum of conflict. The "Revolution in Military Affairs" in the 1980s both enhanced and complicated this effort. Of particular difficulty was properly using expanding Information Warfare (IW) capabilities when planning and executing operational deception. Research reveals three areas where operational commanders may have to adjust their thinking in the operational design of the campaign plan: surprise, security, and boldness. Analysis of the use of operational deception and IW in both the air and land campaigns in DESERT STORM reveals how CINCCENT blended these items into a successful operational deception plan. The lessons learned when reviewing the planning and execution of the deception offer some insights into use with IW in future campaigns. U.S. planners and operational commanders cannot assume that the potential dominant battlefield awareness IW can provide will necessarily translate into successful deception operations.

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Introduction

"It's true that soldiers don't change--but what they have to learn does."
General John Galvin[1]

In the late 1970s, the U.S. military began a new quest to better structure the planning and execution of military operations between the tactical and strategic levels of war. The Services and the Joint Staff have since embraced, if not in a unified effort at least with some enthusiasm, the concepts, functions and elements of "Operational Art" as means to maximize combat force deployment, employment, and sustainment at the operational level of war.[2] Properly shaping the battlespace at this level, where time and space are greatly expanded, allows for the design of campaign plans which can clearly connect military operations with national objectives across the spectrum of conflict. The goal was to get the operational commander to think at the "operational" level. As General Otis, CINCUSAEUR, stated, "At the operational level of war, your goal is not kill the enemy, but to provide opportunities for the commanders at the tactical level to kill the enemy."[3]

A major challenge for operational commanders when attempting to plan and execute combat operations in this expanded battlespace was command and control of increasingly

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[1] David Jablonsky, "Strategy and the Operational Level of War," in The Operational Level of War Across the Spectrum of Conflict, by the Warfighting Study Group (Carlisle Barracks, PA: Strategic Studies Institute, 1987), 25.

[2] Milan N. Vego, Operational Art (Newport, RI: Naval War College, Jan 96), 4.

[3] William J. Bolt, Jr. and David Jablonsky, "Tactics and the Operational Level of War," in The Operational Level of War Across the Spectrum of Conflict, by the Warfighting Study Group (Carlisle Barracks, PA: Strategic Studies Institute, 1987), 39.

sophisticated weapon systems during the rapid pace of technological change occurring during the 1980s. Capitalizing on the emerging capabilities and exploiting them through sound doctrine in the development of Operational Art concepts was key to ensuring the U. S. military was the beneficiary of the technological advances. History has shown that the country initiating a new capability is not always its beneficiary. "While the British introduced the tank to ground warfare, it was the Germans, almost two decades later, who first mastered the innovation's revolutionary possibilities." [4]

Admiral Owens termed the technological explosion a "Revolution in Military Affairs" (RMA). While it is beyond the scope of this paper to enter the "revolutionary versus evolutionary" debate, it is difficult to dispute Admiral Owens' assertion that the United States now has a "system of systems" with the potential to provide dominant battlespace awareness. The platforms and sensors providing intelligence, surveillance, and reconnaissance, when combined with the processing and reporting systems, give the operational commander "a better vision of the battlespace from logistics to forces to weather."[5] General Moorman envisions an almost transparent battlespace where "space assets will update maps and enemy troop movements even as we [U.S. forces] deploy. When engaged, direct contact with the cockpit, foxhole, and bridge with up-to-the-minute situational awareness." [6] Operation DESERT STORM gave U.S. military commanders their first chance to test how well the

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[4] James H. Patton, Jr., "The New 'RMA'--It's Only Just Begun," Naval War College Review , vol. XLIX, no. 2 (Feb 96), 25.

[5] William A. Owens, "The Emerging System of Systems," PROCEEDINGS (May 95), 37.

[6] Thomas Moorman, "The 'Space' Component in Aerospace," Comparative Strategy, vol. 12, no. 3 (Jul-Sep 93), 252.

technological advancements had been blended with the resurgence of Operational Art in campaign planning and execution.

Thesis

> "From Plato to NATO the history of command in war consists essentially of an endless quest for certainty."
>
> Martin van Creveld[7]

The paper will look specifically at one facet of the blending of Operational Art and RMA--operational deception and information warfare (IW). While a seemingly perfect blend of mission and capability, the concept of dominant battlespace awareness has not proved a panacea for commanders planning and conducting operational deception. In fact, several new challenges for operational commanders have emerged as result of the impact of enhanced IW capabilities on operational deception. The paper will review how operational commanders must re-evaluate their approach to implementing surprise, security, and boldness as part of campaign planning and execution. An analysis of the operational deception employed during Operation DESERT STORM in both the air and ground campaigns indicates a shift in traditional operational deception as a result of the advances in IW. The review of these plans will serve a baseline for analyzing the implications of subsequent advances in IW technology on the use of operational deception in future military operations. Proper synchronization of operational deception in the campaign plan will be vital to producing maximum combat power at the proper place and time. U.S. military planners and commanders cannot assume that the dominant battlespace awareness provided by IW will necessarily equate to campaign victories when planning and executing operational deception.

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[7] Martin van Creveld, Commanders in War (Cambridge, MA: Harvard University Press, 1985), 270.

Definitions: Bounding the Concepts

"In wartime truth is so precious that she should always be attended by a bodyguard of lies."

Winston Churchill[8]

In order to facilitate the examination of the challenges IW capabilities present to commanders planning deception at the operational level of war, it is necessary to bound the concepts and establish a common reference for the concepts discussed.

Operational deception.

Sun Tzu wrote that "all warfare is based on deception. Offer the enemy a bait to lure him, feign disorder and strike him!"[9] The key to deception at the operational level of war is to offer the "bait" to enemy commander with the authority to react operationally. Joint Pub 3-0 states that the goal of deception is to get the enemy commanders to react; "form an inaccurate impression about friendly force capabilities or intentions, misappropriate their intelligence collection assets, and fail to employ combat or support units to their best advantage."[10] If successful, the operational commander will have succeeded in shaping the battlespace for tactical victories and "help to achieve the security and surprise principles of war."[11]

Because the operational commanders are attempting to shape the enemy's perception of intentions and capabilities across the entire battlespace, operational deception tends to require

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[8] Michael Dewar, The Art of Deception in Warfare (Great Britain: David and Charles Publishers, 1989),6.

[9] Sun Tzu, The Art of War, translated by Samuel B. Griffin (New York: Oxford University Press, 1963), 66.

[10] The Joint Chiefs of Staff, Joint Pub 3-0: Doctrine for Joint Operations (Washington, DC, 1995), III-30.

[11] The Joint Chiefs of Staff, Joint Pub 2-0: Joint Doctrine (Washington, DC, 1995), III-5.

a larger percentage of forces available to assure the desired perception and reaction. Clausewitz discusses the risks associated with expending a large number of resources and forces in an effort to deceive the enemy. The forces "might not be available when the are really needed."[12] Therefore, while helping to achieve security and surprise, if not properly synchronized, operational deception involving a large percentage of available forces could negatively impact the commander's ability to seize the initiative and concentrate forces.

Information warfare.

Exploiting IW capabilities requires carefully synchronized offensive and defensive operations to ensure dominant battlespace awareness. Protecting friendly C2, C2W, EW, and C4I assets is equally as important as attacking those of the enemy. On the modern, high-tech battlefield, IW combines with precision strike capabilities early in the campaign to deny the enemy critical knowledge of both their own and friendly forces. While the result of the offensive operation may be to turn the enemy's "fog of war" into a "wall of ignorance," the real objective is the enemy's decision loop.[13] Once the enemy is blinded, the U.S. operational commander must exploit the enemy's inability to react. FMFM-1: Warfighting, uses the "Boyd Cycle" of observation, orientation, decision, and action, to describe the decision making process. By using IW to disrupt the enemy's decision making cycle, the commander's operational deception and surprise does not necessarily have to "catch the enemy totally off guard, just such that he understands too late react."[14] Defensive operations

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[12] Carl von Clausewitz, On War, edited and translated by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 203.

[13] Ed Felker, "A View to the Future," A Common Perspective: Joint Warfighting Center's Newsletter, vol. 3, no.2 (9 Sep 95), 17.

[14] U.S. Department of the Navy, FMFM-1: Warfighting (Washington, DC: HQ USMC, 1989), 32-33.

are designed to protect friendly IW capabilities and assets allowing the operational commander to view the "transparent" battlespace with impunity. "Thus IW can thought of as the science of overcoming your own ignorance while making your adversary as stupid as possible."[15]

Some military analysts challenge the premise that IW can achieve and sustain dominant battlespace awareness. "The premise--the notion of operational impunity, invulnerability, invincibility upon which RMA [IW] advocates base much of their argument--is flawed. Every system, every platform, every sensor has a vulnerability, an Achilles' heel, that makes it susceptible to exploitation, compromise, or defeat."[16] The commander's effectiveness in successfully executing operational deception against a high-tech enemy will certainly be impacted by his ability to exploit the IW environment and disrupt the enemy decision cycle. The challenges for the commander center on the need to exploit the intelligence collected and the advantage gained over the enemy in decision processing time through action in the battlespace.

Challenges for the Operational Commander

> As we cope with the rapid change in technology, "the payoff will go to leaders who are bold, creative, innovative, and inventive. Conversely, there is enormous risk of hesitation, undue precision, and a quest for certainty."
>
> General Gordon R. Sullivan[17]

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[15] Steven M. Hardy, "Should We Fear the Byte Bomb?" Journal of Electronic Defense, vol. 19, no. 1 (Jan 96), 42.

[16] Warren Caldwell, Jr., "Promises, Promises," PROCEEDINGS (Jan 96), 56.

[17] Owens, 36.

Today's commander will operate in a high-tech battlespace where IW can potentially offer a level of real-time situational awareness never before available. Joint Pub 1 states, "overhead, space-based capabilities affect all terrestrial forces with a potential we have only begun to grasp."[18] Unlike World War II when Operation ULTRA gave Allied commanders an unparalleled insight into the Axis commanders' intentions,[19] IW will provide a real-time view of troop disposition and movement. An understanding of the enemy commander's intent may still be absent and will become a primary concern of the operational commander. It still takes operational leadership to analyze intent. IW will provide the operational commander two essential elements of the battlespace to help predict the enemy's intent--enemy susceptibility and reaction. Through intelligence assets, IW can help the operational commander determine how well the deception plan is working--is the enemy reacting "operationally?"

The impact of IW on a commander's ability to successfully plan and execute operational deception will present major challenges in three areas affecting the operational design: surprise, security, and boldness. The objective is to use IW capabilities to enhance operational deception thereby increasing freedom of action. "Several aspects of modern warfare tend to restrict freedom of action. Sophisticated information technology and the nature of modern news reporting, for instance, make the tasks of ensuring operations security and surprise more difficult."[20] Boldness is key to overcoming the challenges presented.

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[18] The Joint Chiefs of Staff, Joint Pub 1: Joint Warfare of the Armed Forces of the United States (Washington, DC, 1995), I-2.

[19] F. W. Winterbotham, The ULTRA Secret (New York: Dell Publishing Co., Inc., 1974), 196.

[20] The Joint Chiefs of Staff, Joint Pub 1-0, III-6.

Surprise.

Operational deception has long been the prelude to the implementation of successful surprise operations. If able to get the enemy to react operationally while concealing one's own intentions, the combination of IW and deception enable surprise operations "to strike the enemy with powerful blows from unexpected directions or dimensions, and to press the fight to the end."[21]

The challenge IW presents the operational commander when using deception as a prelude to surprise is to avoid operational stagnation while awaiting "perfect" intelligence. The commander must include deception and surprise planning from the onset of a campaign and avoid "paralysis by analysis" during execution. U.S. IW capabilities and doctrine are well publicized in professional journals. The enemy, if a high-tech adversary, will use counter deception measures to taint the view of the battlespace.[22] Therefore, the key to successful deception and surprise operations becomes not so overly dependent on whether or not the enemy totally took the "bait," but on the commander's ability to react faster than the enemy when analyzing and acting upon events in the battlespace. The campaign plan must include offensive IW operations to blind the enemy in order not only to confuse as to your intentions, but allow you to use rapid, dominant maneuver to concentrate friendly forces at decisive points through surprise operations. Since the deception may be short-lived, the surprise maneuver must be rapid and decisive.

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[21] U.S. Department of the Army, FM 100-5: Operations (Washington, DC: HQ, Department of the Army, 1993), 2-2.

[22] Richard T. Lambert, "Deception and the World-Class Opposing Force," News Form the Front (Jan-Feb 96), 2.

As technology improves, the potential increases for the operational commander to negatively impact operations at the tactical level while waiting for IW to produce absolute certainty. When a commander builds deception and surprise into the campaign plan, tactical commanders must be given freedom of action to execute the plan. This should be affected by a clearly defined and understood commander's intent.[23]

Security.

Fm 100-5: Operations succinctly identifies one aspect of the challenge of security when conducting operational deception and surprise. "Deception operations are designed to mislead enemy decision makers by distorting, concealing, and falsifying friendly intentions, capabilities, and dispositions."[24] However, while correctly identifying deception and a key to the probability of achieving surprise. FM 110-5 also warns that "rapid advances in surveillance technology and mass communications make it increasingly hard to mask or cloak large-scale marshaling or movement of personnel and equipment."[25]

The U.S. Army planners suggest that 30-40 percent of forces assigned should be used if planning deception at the operational level.[26] A force this size is required due to the potential for a high-tech enemy to detect the feign. Therefore, without proper branches/sequels in the campaign plan, the commander will limit the ability to concentrate forces at decisive points. Furthermore, the commander cannot assume impunity even if offensive IW operations negate the enemy's organic IW capabilities. The threat to deception and surprise may come from

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[23] van Creveld, 102.

[24] U.S. Department of the Army, 6-9.

[25] Ibid., 2-4.

[26] Lambert, 2.

commercially available space systems such as surveillance, navigation, communication, and environmental monitoring. U.S. Air Force General Charles Horner predicts "this space system and data proliferation will transform our [U.S.] current high-ground advantage into a more level playing or war fighting field in the future."[27] The current U.S. policy to rely on CONUS-based, power projection to the theater of operations further complicates the ability of the commander to successfully execute operational deception.

The media broadcasts detailed information on every unit deployment from the CONUS to a theater of operations and give a potential enemy instant updates on coalition building. While certainly valuable as a possible deterrent, it definitely hampers a commander's ability to mask capability. The advent of "real-time" reporting from the war zone is another complicating factor. During World War II, 2,600 correspondents covered the world-wide actions of over 12 million troops over a 4-year period. During Operation DESERT STORM, over 1,600 reporters covered less than 600 thousand coalition troops for a 6-month period, all confined to the Saudi Arabian peninsula.[28] Dan Rather points to evolving technology in mass communications as a key concern for future military operational security. "Very soon, one correspondent will be able to carry all it takes [for on the scene, satellite connectivity] inside a backpack, and soon after that, in the pocket of a bush jacket."[29]

The magnitude of forces required to successfully deceive the enemy at the operational level of war, when overshadowed by commercially available space-based information and the aggressive, high-tech mass media, greatly impact the operational commander's ability the

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[27] Charles A. Horner, "Space Systems Pivotal to Modern Warfare," Defense 94 4, 22.

[28] Terrance M. Fox, "Closing the Media-Military Technology Gap," Military Review (Nov-Dec 95), 10.

[29] Dan Rather, "Honest Brokers of Information," Naval War College Review,, XLVIII, no. 4 (Aut 95), 39.

deceive and surprise the enemy. The larger the deception effort and the longer it must be maintained, the greater the risk of discovery. The focus again becomes one of disrupting the enemy's decision cycle and using synchronization and maneuver to exploit any advantage gained in the battlespace. This is where an operational commander's boldness in action becomes critical.

Boldness.

To overcome the risk of operational paralysis when exploiting IW to achieve operational deception and surprise requires a high degree of boldness of action by the operational commander. This boldness indicates a willingness to accept calculated risks, not waiting timidly for the perfect intelligence or exact timing.[30] Because deception in the high-tech battlespace is potentially short-lived due to discovery, exploiting the enemy's inability to react becomes time critical and marks boldness as an essential trait for a successful operational commander. Clausewitz warns, however, that "the higher the military rank, the greater is the degree to which activities are governed by the mind, by the intellect, by insight. Consequently, boldness, which is a quality of temperament, will tend to be held in check."[31]

Overcoming this natural tendency to hesitate while awaiting perfect information or timing will be further complicated by the capability of all levels of the operational commander's chain of command having access to some, if not all, of the real-time information produced by theater IW assets. This further reinforces the need for a clearly-defined and understood campaign plan which incorporates branches and sequels to rapidly exploit by dominant maneuver any

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[30] Milan N. Vego, Operational Leadership (Newport, RI: Naval War College, Jan 96), 3.

[31] von Clausewitz, 112.

breakdown in the enemy's decision loop. The operational commander must both shield off interference from superiors and allow freedom action for the tactical commanders to win the victories. Proper use of IW and deception will enhance security and set the stage for successful surprise operations. However, it is not simply technology, but decisiveness, or boldness, that will best exploit IW and deception at the proper place and time in the battlespace.

While IW technology is invaluable as an intelligence collection and distribution capability and enables the operational commander to blind the enemy, it cannot analyze intent or estimate the degree to which the enemy's decision cycle has been disrupted. The operational commander must judge the enemy's reaction to the deception plan and, when it is apparent that the enemy decision loop is broken, exploit the battlespace through dominant maneuver using boldness of action to concentrate forces at decisive points. However, even a well planned and executed operational deception and surprise maneuver using a vast of array of high-tech IW assets will not guarantee total operational success. In spite of overwhelming information dominance, air superiority, a positive correlation of ground forces and effective deception and surprise, most of the Iraqi Republican Guard--the center of gravity--escaped the famous "Left Hook."[32]

Operational deception and IW in Operation DESERT STORM

General Schwarzkopf clearly understood the need to conduct operational deception and IW in his campaign for offensive actions against Iraq during Operation DESERT STORM. His 25 August 1990 Commander's Intent Brief to the U.S. Secretary of Defense set the stage.

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[32] Kenneth F. McKenzie, Jr., "Beyond Luddites and Magicians: Examining the MTR," Parameters vol. XXV, no. 2 (Sep 95), 17.

> We will offset the imbalance of ground combat power by using our strength against his weakness. Initially execute deception operations to focus his attention on defense and cause incorrect organization of forces. We will initially attack into the Iraqi homeland using air power to decapitate his leadership, command and control, eliminate his ability to reinforce Iraqi forces in Kuwait and southern Iraq. . . . . Finally we will fix Iraqi forces in place by feigns and limited objective attacks followed by armored force penetration and exploitation to seize key lines of communication nodes, which puts us in a position to interdict resupply and remaining reinforcements from Iraq and eliminate forces in Kuwait.[33]

From this intent grew the now famous "left hook" surprise maneuver in the desert which was an operational and tactical success primarily due to the believable and well-executed operational deception by U.S. Marine Corps amphibious assault units.[34] Less publicized but equally important to this analysis was the use of IW and deception prior to the beginning of the air campaign. The use of deception prior to both the air and land campaigns provides some lessons learned concerning operational deception and IW with respect to surprise, security, and boldness, and a baseline for analyzing IW impacts on future deception operations.

The air campaign.[35]

The operational deception in the support of the air campaign foreshadows the key role IW may play in future campaigns--the entire feign or ruse was IW-based, not a physical combat capability. U.S. Air Force planners had to determine how to stop the flight of civilian aircraft in the theater of operations without raising suspicions as to the impending initial assault of

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[33] U.S. Department of Defense, Final Report to Congress: Conduct of the Persian Gulf War (Washington, DC: 1992), 84.

[34] Ibid., 344.

[35] All specific details concerning the air campaign and deception/IW operations come from Michael R. Gordon and General Bernard E. Trainor, The General's War (Boston: Little, Brown and Company, 1995), 121-122.

forces employing offensive IW operations. The targeting of radars, communications nodes, and command posts in Baghdad was no simple task.

The deception began by having an AWACS broadcast in the clear that a "special" aircraft had been lost, inferring an F-117. During the search and rescue effort, all civilian flights were halted. The additional targets on Iraqi radar could easily be "explained away" as aircraft used in this effort. The deception was planned and executed using the utmost security precautions and an array of coalition air assets engaged in search and rescue type operations to increase plausibility. The operational deception plan was necessarily short-lived, intending only to allow for the surprise attack before the Iraqi decision process could react, thereby minimizing detection. The successful deception paved the way for rapid maneuver of assets as part of the surprise offensive IW operations to "blind" the enemy and subsequently totally disrupt the Iraqi decision loop.

The ground campaign.[36]

Operational deception in support of the ground campaign was more a traditional deception plan of attempting to get the Iraqi leaders to incorrectly analyze coalition intentions; that an amphibious attack on the Kuwait coast was the main effort. This allowed coalition leaders to shape the battlespace for the surprise "left hook" operation. The plan served its purpose of fixing the Republican Guard and forcing Iraq to divert intelligence assets and resources away from the intended line of advance from the West. IW contributed heavily to the success of the deception and surprise. Landing exercises by U.S. Marines were covered by the media; the coaltion moved amphibious forces further North in the Gulf; Special Operations Forces

[36] All specific details concerning the ground campaign and deception/IW plan come from U.S. Department of Defense (previously cited), 90-344.

activities in the expected assault area; and a lessening of operational fires in the intended area of advance each contributed to solidifying the erroneous Iraqi perception of coalition intentions. CINCCENT then used dominant operational maneuver to reposition the VII Corps while IW blinded the Iraqi leaders and paralyzed their decision loop. Security was critical to both the successful deception and surprise. Boldness to maneuver and commit concentrated forces at the decisive point insured mission success.

One key to the overall IW contribution was an agreement by Russia and France not to provide satellite imagery to Baghdad. Also, JSTARS gave CINCCENT real-time information that the Iraqi were taking the "bait' and not repositioning forces. IW limited Iraqi ability to interpret actions in the battlespace and led to their misappropriation of forces. Boldness of action and dominant manuever limited the possibility of detection until it was too late for the Iraqis to react.

Implications for Operational Deception in the Future.

As the RMA continues, the proper integration of IW capabilities used in conjunction with operational deception will continue to evolve as a major challenge when implementing surprise and security against high-tech adversaries. Commercially available space-based technology could level the IW playing field in future operations. There is also no guarantee the next coalition involving U.S. forces will be comprised of all powers with space-based or other high-tech IW capabilities, thereby increasing the risk of detection. Boldness to use dominant maneuver at a decisive point will be critical to successfully exploiting a blinded or confused enemy whose decision loop is slowed, disrupted, or destroyed. The key for the

commander is to act when all intelligence needed to initiate operations is available; not when there is "perfect" intelligence. Advances in both enemy capabilities and the technological advances of the media can shorten the life span and plausibility of operational deception.

As shown in the air campaign in DESERT STORM, IW can provide the rapid, specific, and plausible deception needed to execute operational surprise if properly planned and executed, without allocating an over abundance of forces to the ploy. The ground campaign deception plan highlights the increased forces required to successfully avoid detection. Close integration of numerous facets of IW capabilities over a longer period of time may be required. Boldness of action by the operational commander was required in both the air and land campaigns to properly synchronize deception, surprise, and security. Dominant battlespace awareness, in and of itself, will not necessarily guarantee success when employing operational deception.

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